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SECTION 1

Refereed Section

Possibility Of Introducing A Practical In The Textile Industry For University Home Economics Students

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Abstract

This study is concerned with the implementation of industrial experience in Technical Education programmes so as to enable students to acquire more practical skills. A study of textile establishments in Harare, Bulawayo, Gweru, Mutare, Chegutu, Kadoma and Chitungwiza was conducted. Questionnaires and interviews were used for data collection. The study was undertaken under the assumption that if students went for industrial attachment, they would acquire skills that would help them prepare their secondary school pupils for industrial careers and self-employment.

The study revealed the following points of interest:

- 1. All textile establishments involved in the study were willing to help with the training of students in one way or another.

- 2. All Home Economics students involved were willing to go for industrial training as they believed that it would provide them with skills difficult to acquire in the classroom and would be able to teach more effectively at any school on college level.

- 3. Both the students and those in the industries suggested a minimum of five to six weeks of practicals a year for students to acquire sufficient practical skills.

Assuming that the above findings are accurate, a strong case can be made that favours the implementation of industrial attachment. It is strongly recommended that the department of Technical Education and other educators should establish some dialogue with the industries so that those in the industries can contribute more to education by suggesting areas for further training. If areas for training are suggested by those in industries, graduates produced will have skills relevant to industries, thus increasing their chances of being employed.

Introduction

The department of Technical Education at the University of Zimbabwe includes programmes in practical subjects such as Home Economics, Metalwork, Woodwork, Agriculture, Building and Technical Graphics. The department started off with full-time programmes in Agriculture and Building in January 1987. In 1988 the programme included full-time Home Economics (HE). The Technical Education programme was introduced after the government had decided that vocational and technical studies were important features in the Zimbabwean education system, and that there was an urgent need for training teachers to handle all levels of the school system. The emphasis remained on limited practical experience and abundant theory. According to the Swedish International Development Authority (SIDA) and the Ministry of Education (1988), curriculum and teaching material which will help improve practical skills for those involved in any kind of practical training were being developed.

The department of Technical Education at the University of Zimbabwe is looking into the feasibility of implementing a component on industrial experience in all its programmes, so that students may acquire practical skills required by the industries. Such skills will enable teachers to more effectively prepare their pupils for jobs when they go back to their schools. In Zimbabwe, since 1980 ,the areas referred to

above are the main focuses of the Ministry's curriculum on Technical Education. Before independence, schools and colleges neglected basic training in technical fields of which opportunities for entry into jobs are ever increasing. Up to now there has not been any specific training for employment at secondary school level.

The focus of this study was on the possibility of HE (Home Economics) University students doing practicals in the textile establishments.

Problem Statement

Ever since the Bachelor of Education (B.Ed.) programme in Technical Education started, there has not been any planned and documented programme of on-the-job training relevant to industries. Those who have completed the programme in the past, and those who still need to complete it ,are expected to prepare pupils for entry into industrial careers or self-employment after school. There is need therefore that students in Technical Education experience an industrial attachment, in order to acquire necessary skills which will help them adequately train their own pupils for employment. The arguments above point to the need for interlacing what is learnt in the classroom with relevant practical work in a specified industrial work places.

The study was conducted in the belief that the textile establishments might be hesitant to take students for practicals for the fear of disruption in the production process. It seemed advisable therefore to conduct a feasibility study before attempting to implement the projected programme. It was considered that this study would be very informative to the department of Technical Education. The findings would prove useful in determining the feasibility of industrial links with the department in training students. The study would shed light on other areas in the department as well.

Purpose Of The Study

The purpose of the study was to find out the possibility of introducing a practical in the textile industry for HE students.

Research Questions

The researcher then set out to seek answers to the following questions:

1. Would the textile establishments agree to take HE University students for their practicals?

2. Would H.E students feel that industrial practice would help them improve their teaching ?

3. How much time would be required by students to acquire basic skills in the processing, manufacturing, and finishing of textiles?

Review Of Literature

In reviewing literature, the researcher found that Thayer and Levit (1969) in the United States also found evidence to the effect that less than 20% urban high school students received any sort of specific training for jobs. They state that "...education must be given to bridge the traditional gap between general vocational education on secondary and post secondary school levels" (p 316). Attaching students to relevant industires contributes to bridging the gap between education and the world of work.

With respect to textiles, HE University students need to acquire basic practical skills in the industrial processing of fibres, manufacturing of yarns and fabrics, and finishing of textiles. At present, what goes on in industry is learnt primarily in the classroom and by study tours. It can be argued that students do acquire some of the above mentioned skills during study tours. Although Chamberlain and Kelly (1981) observe that learning of an observational nature is relevant in HE,

Rwambiwa et al (1984) present the effectiveness of learning, according to several studies in the United States, as follows:

	% of learning that takes place
Reading alone	10
Hearing (lectures)	20
Seeing (visual aids)	30
Seeing (illustration) and Hearing	50
Doing (acting on the lesson)	80
Saying and Doing	90

Source: Rwambiwa et all (1984: 26)

Given the above ,it can be argued that in order to enhance better understanding of textiles, students need to put into practice theoretical information they receive by being physically involved in textile manufacturing processes.In Zimbabwe a few studies related to attaching secondary school pupils to the industry have been carried out, but none of these looked into the feasibility of attaching HE University to specific relevant industries such as the extile industry.According to the Central Statistical Office, the classification of the textile subsectors includes cotton ginning, spinning, weaving, finishing textiles, knitted products, rope and cordage and other textile products (Census of production 1984/85).

Because the textile industry involves a variety of manufacturing processes and is very relevant to the industrial experience of HE students, it has been addressed in this study.

Methodology

The research design:

A survey was conducted in the textile industry in order to determine the feasibility of providing attachments for H E students in this industry.

The samples of the study were drawn from the textile industry, and also from the HE students who completed the degree programme in 1990. The two groups were given different questionnaires to complete. The samples and questionnaires for the two groups are discussed separately below.

The textile industry sample:

According to Gozo (1990) there are about seventy textile establishments in Zimbabwe. The population of the textile industry is made up of fifty-eight textile establishments in Harare, Bulawayo, Gweru and Mutare. Besides being the four largest centres in the country, the centres have the largest numbers of textile companies. Other towns included were Kadoma, Chegutu and Chitungwiza where some of the largest textile establishments in the country are also found. The fifty-eight establishments were identified from the Zimbabwe Export Directory by the Confederation of Zimbabwe Industries (1990). These establishments were first listed and numbered; thereafter fourteen were randomly chosen. Production managers, personnel managers and supervisors were used for data collection because they were expected to understand the questionnaires better than hourly workers. The choices of supervisors used as respondents were made by their personnel managers.

The Home Economics University students sample:

In order to validate the findings from industrialists, it was necessary to seek students' views on how they felt about doing some of the practicals in the textile industry, the kind of knowledge they would expect to acquire, and problems they anticipated they were likely to encounter.

There were twenty-one students enrolled for the 1989/90 academic year. All were given the questionnaire to complete. Eighteen returned the questionnaires which were collected immediately after completion.

Data collection procedure:

Data were collected using two sets of questionnaires for the textile industry and only one for the HE students. The first set of questionnaires was sent to the fourteen companies thus chosen for the study. This questionnaire was to be completed by production managers. It was divided into four areas,eliciting information on the history of the textile establishments, factors affecting their production capacity, their employment needs. and how they can contribute to educating H E University students.

The second set of questionnaires sent to the fourteen companies was to be completed by personnel managers and supervisors. This questionnaire meant to find out if those in the textile industry would be willing to train HE students in industrial skills.

Out of the fourteen textile establishments chosen for the study, only ten responded. From the ten that responded, six returned the completed questionnaires by post, one sent back the questionnaires uncompleted with a note stating that the company had been sold, and the remaining three called for interviews. Interviews were carried out with production managers, personnel managers, and supervisors. The questionnaire was completed in the course of the interviews. In all fifty-nine completed questionnaires were collected and used.

Nine production managers, nine personnel managers and forty-one supervisors from nine companies constituted the sample of the study (Table 1).

Table 1 : Location Of Companies And Number Of Respondents In EachCompany

	-No of comp in each location	Number of production man	Number of personnel man	Supervisors	TOTAL
Bulawayo	1	1	1	5	7
Chegutu	1	1	1	4	6
Chitungwiza	1	1	1	5	7
Gweru	1	1	1	4	6
Harare	1	1	1	4	6
	2	1	1	5	7
	3	1	1	5	7
TOTAL		9	9	41	59

*man = manager; *No = number; * comp = companies
*Bulawayo 1
2 = three companies were located in Bulawayo
3

The questionnaire completed by the students was different from the two completed by those in the textile industry. It was a short open-ended questionnaire.

Data analysis procedures:

The data obtained was analyzed using simple descriptive statistics.

Findings

The textile industry:

The findings on the textile industry are presented in the table below.

TABLE 2: COMPANIES YEARS OF MAXIMUM AND MINIMUM PRODUCTION, CONSUMPTION OF THEIR PRODUCTS AND THEIR DISTRIBUTION OF WORKERS ACCORDING TO NATIONALITY AND SEX.

No of comp in		Production		Consumption(%)		Workers(%)			
each location		max	min	local	export	Zim	For	M	F
Bulawayo	1	1981-82	1978-80 1985-88	75	25	99	1	83	17
	2	1981-82	"	90	10	100	0	75	25
	3	1988-89	"	78	22	100	0	70	30
Chegutu	1	1981-82	"	60	40	70	30	95	5
Chitungwiza	1	1990	"	80	20	100	0	90	10
Gweru	1	1981-82	"	60	40	100	0	70	30
Harare	1	1981-82	"	65	35	65	35	98	2
	2	1988-89	"	78	22	75	15	90	10
	3	1988-89	1985-88	75	25	75	25	85	15
Kadoma		NO RESPONSE WAS RECEIVED							
Mutare		ONE COMPANY HAD BEEN SOLD, OTHERS DID NOT REPLY							
			AVERAGES	73,4	26,6	88,2	11,8	84	16

*Zim = Zimbabwean; *For = Foreigners; *M = Male; *F = Female
*No = number; *comp = company
*Chegutu 1 = one company was located in Chegutu.

The findings revealed that companies used in the sample started operating between 1945 and 1980. None of them was started after 1980. Four out of the nine companies started operating between 1945 and 1950, two started between 1951 and 1955, another two started between 1970 and 1975, and only one was started in 1980.

The table shows that five out of the nine companies had maximum production just after 1980, in 1981/82: one of the reasons stated being that during that time there was no government economic control. Three improved production capacity in 1988/89. One of the reasons for the increase being that their buying power had increased due to

legislated wages. Only one company claimed that it had acceptable results and returns in 1990.

Eight out of the nine companies had minimum production between 1978 and 1980 due to the effect of sanctions imposed on Rhodesia. During that time, the companies concerned claimed that they had no machine replacement. All the nine companies again lost in production between 1985 and 1988. This was due to poor foreign currency allocation which resulted in the non-purchasing of raw materials.

Some of the problems which the textile industry experienced were initial growth, poor quality cotton, less skilled labour, rising wages, shortage of raw materials.

Future problems anticipated by the industry include shortage of foreign currency, lack of quality spun yarn, lack of lint supply and good quality cotton. In addition the price of cotton lint is likely to increase plus the acquisition of modern machinery and spare parts.

The findings also revealed that the textile industry is the largest wage earner and exporter, and has the largest potential. The industry exports an average of 73,5% of its products. Table 2 shows that an average of 88.2% of the employees in textile industry are Zimbabweans. Eighty-four percent of those employed by the industry are male. Some of the reasons given by production managers as to why they employed more men than women were that night shifts limit the employment of women and more men than women are bread winners.

Since the companies started operating, their production had never been as expected by the owners. The production managers revealed that at times they experienced more loss than gain in production. They have also experienced problems related to shortage of raw materials, poor quality cotton, rising wages, and still anticipated more problems such as shortage of foreign currency. The question that arises is: Could these companies then be willing to help with the training of students, especially after encountering all of these problems?

Views on taking students for practicals:

Out of the nine production managers that participated in the study, three of them agreed that Home Economics University students could do practicals in their establishments. One said that the students could be allowed for research provided they would not interfere with the production process. Two said students could only come for tours and they were prepared to provide a guide. Another two said that they would agree to host students depending on what the students would like to do. The remaining one said it was the duty of the University to come up with formal training for the textile industry. That kind of training should result in professional qualifications.

Four out of nine personnel managers said they would accept students in their companies. Five said they were prepared to help students only if they were on study tours or carrying out research work. Three of the five said they already had too many people to attend to and were not willing to take more.

The expression by all the managers, both production and personnel, was that those involved in the planning and teaching of practical subjects need to consult relevant industries in order to produce employable people. In the case of fashion and fabrics, the clothing manufacturers would be the best to consult.

All the forty-one supervisors expressed the willingness to work with students provided students will have obtained permission from the responsible authorities in their industries.

Out of the nine companies used in the study, only one had once been consulted about what the fashion and fabrics syllabus at different levels should include. Suggestions were submitted to those responsible for the school syllabi in 1989, but the company had not yet received feed-back.